

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Cancelled)

2. (Currently Amended) A lighting arrangement as claimed in claim 1, wherein the DC-DC-converter is an up-converter.

3. (Currently Amended) A lighting arrangement as claimed in claim 1, A lighting arrangement comprising a LED array and a circuit arrangement for supplying the LED array, the circuit arrangement comprising a DC-DC-converter for generating a DC output voltage V_{out} out of a DC input voltage V_{in} and equipped with

input terminals for connection to a supply voltage source supplying the DC input voltage V_{in} ;

an inductive element;

a diode;

a switching element for controlling the current through the inductive element;

a control circuit coupled to a control electrode of the switching element for generating a control signal for rendering the switching element periodically alternately conductive and non-conductive; and

output terminals between which the DC output voltage V_{out} is present during operation wherein a capacitor is coupled between the output terminals;

wherein the LED array is coupled between an input terminal and an output terminal.

4. (Currently Amended) A lighting arrangement as claimed in claim 1, A lighting arrangement comprising a LED array and a circuit arrangement for supplying the LED array, the circuit arrangement comprising a DC-DC-converter for generating a DC output voltage V_{out} out of a DC input voltage V_{in} and equipped with

input terminals for connection to a supply voltage source supplying the DC input voltage V_{in} ;

an inductive element;

a diode;

a switching element for controlling the current through the inductive element;

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a control circuit coupled to a control electrode of the switching element for generating a control signal for rendering the switching element periodically alternately conductive and non-conductive; and

output terminals between which the DC output voltage V_{out} is present during operation;

wherein the LED array is coupled between an input terminal and an output terminal;

wherein the control circuit is equipped with means for operating the DC-DC-converter in the critical discontinuous mode.

5. (Currently Amended) ~~A lighting arrangement as claimed in claim 1, A lighting arrangement comprising a LED array and a circuit arrangement for supplying the LED array, the circuit arrangement comprising a DC-DC-converter for generating a DC output voltage V_{out} out of a DC input voltage V_{in} and equipped with~~
input terminals for connection to a supply voltage source supplying the DC input voltage V_{in} ;

an inductive element;

a diode;

a switching element for controlling the current through the inductive element;

a control circuit coupled to a control electrode of the switching element for generating a control signal for rendering the switching element periodically alternately conductive and non-conductive; and

output terminals between which the DC output voltage V_{out} is present during operation;

wherein the LED array is coupled between an input terminal and an output terminal;

wherein the DC-DC-converter is equipped with means I for controlling the average current through the LED array at a predetermined value.

6. (Original) A lighting arrangement as claimed in claim 5, wherein the means I comprise means coupled to the input terminals and the output terminals for controlling a time lapse T_{on} , during which the switching element is maintained in a conductive state during each period of the control signal, proportional to a mathematical expression that is a function of V_{in} and V_{out} .

7. (Original) A lighting arrangement as claimed in claim 6, wherein the means I comprise means for controlling T_{on} proportional to V_{out}/V_{in}^2 .

8. (Original) A circuit arrangement as claimed in claim 6, wherein the DC-DC-converter is equipped with means II for substantially square wave modulating the amplitude of the current through the LED array.

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